

**Notice of Allowability**

Application No.

10/738,369

Examiner

Patrick J. Connolly

Applicant(s)

STENTON, WILLIAM CONRAD

Art Unit

2877

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 15 December 2003.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 12.15.2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Gregory J. Tooley, Jr.  
Supervisory Patent Examiner

17 FEB 04

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Schubert on February 10, 2006.

The application has been amended as follows:

The end of **line 7 in claim 1** now reads "or" *instead of* "and".

The end of **line 2 in claim 9** now reads "or a" *instead of* "and a".

**Claim 10** now reads:

The apparatus of claim 1 in combination with an interferometer disposed such that an alignment beam, perpendicular to at least one of said first or second planar alignment surfaces, is aligned to reflect from the at least of said first or second planar alignment surfaces.

The end of **line 9 in claim 13** now reads "or" *instead of* "and".

The beginning of **line 4 in claim 19** now reads "second reflector, or" *instead of* "second reflector, and".

***Allowable Subject Matter***

Claims 1-20 allowed.

The following is an examiner's statement of reasons for allowance:

As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious an apparatus having a first reflector defining an active concave surface and a second reflector defining an active surface facing the active concave surface, the active concave surface of the first reflector defining an optical axis including: a first planar alignment surface that is perpendicular to the optical axis defined by the active concave surface and a first concave alignment surface defining an optical axis coincident with that defined by said active concave surface; *or* a second planar alignment surface that is perpendicular to an optical axis defined by the active surface of the second reflector and a second concave alignment surface that defines an optical axis that is coincident with that defined by said active surface of said second reflector, in combination with the rest of the limitations of claim 1.

As to claim 15, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method for aligning a first and second reflector with one another including: adjusting tip and tilt of a first reflector so that a first planar alignment surface defined by the first reflector is perpendicular to an optical axis and to a first alignment beam; adjusting a retro-reflector along the optical axis relative to the first reflector; disposing a second reflector spaced from the first reflector such that an active surface of the second reflector faces an active surface of the first reflector; adjusting tip and tilt of a second reflector so that a second planar alignment surface of the second reflector is perpendicular to the optical axis; adjusting one of the first and second reflectors relative to the other of the first and second reflectors such that their optical axes

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are coincident and the reflectors are spaced from one another, in combination with the rest of the limitations of claim 15.

As to claim 20, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of displaying alignment of a first reflector relative to a second reflector in five degrees of freedom simultaneously including: reflecting a performance check beam from, in order, a first point on an active concave surface defined by the first reflector, a second point on an active surface defined by the second reflector that faces the concave surface, at least a third point on an additional reflective surface, a fourth point on the active surface of the second reflector, and a fifth point on the active concave surface; and interfering a beam from the fifth point with a reference beam to display relative alignment of the reflectors, in combination with the rest of the limitations of claim 20.

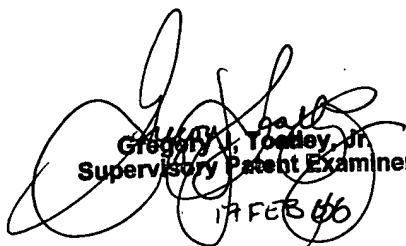
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Connolly whose telephone number is 571.272.2412. The examiner can normally be reached on 9:00 am - 7:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on 571.272.2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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02.10.2006

  
Gregory J. Toatley, Jr.  
Supervisory Patent Examiner  
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